

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of Atty. Docket
ELMO M.A. DIEDERIKS ET AL. PHNL 020628
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METHOD OF AND SYSTEM FOR CONTROLLING AN AMBIENT LIGHT AND LIGHTING UNIT

Commissioner for Patents
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Sir:

APPEAL BRIEF

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(i) Real Party in Interest

The real party in interest in this application is KONINKLIJKE PHILIPS ELECTRONICS N.V. by virtue of an assignment from the inventors recorded on December 22, 2004, at Reel 017338, Frame 0588.

(ii) Related Appeals and Interferences

There are no other appeals and/or interferences related to this application.

(iii) Status of Claims

Claims 1-11 stand finally rejected by the Examiner. Appellants hereby appeal the rejections of claims 1-11.

(iv) Status of Amendments

There was one Amendment filed on January 5, 2009, after final rejection of the claims on November 5, 2008, this Amendment having been considered and entered by the Examiner.

(v) Summary Of Claimed Subject Matter

The subject invention relates to controlling ambient light on the basis of a displayed video signal. In particular, the subject invention relates to a method of controlling at least one ambient light source. As claimed in claim 1, the method of the subject invention includes "receiving a video signal by a receiver". This is shown in Fig. 2 as Ref. No. S200, and described in the specification on page 4, lines 14-16.

The method of the subject invention further includes "presenting the video signal by a presentation device". This is shown in Fig. 1 as Ref. No. 110, and described in the specification on page 3, lines 31-32, and on page 6, lines 25-29.

The method of the subject invention also includes "analyzing the video signal to determine optical properties of an image to be formed by the video signal". This is shown in Fig. 2 as Ref. No. S202, and described in the specification on page 4, line 17 to page 5, line 3.

In addition, the method of the subject invention includes "setting a property of ambient light generated by said at least one ambient light source based upon the determined optical properties." This is shown in Fig. 2 as Ref. Nos. S206 and S210, and described in the specification on page 5, line 12 to page 6, line 15, and page 6, lines 25-29.

As claimed in claim 2, in the method of the subject invention, "said step of analyzing the video signal further comprises face

recognition". This is shown in Fig. 2 as Ref. No. S204, and described in the specification on page 5, lines 4-6.

Further, as claimed in claim 3, in the method of the subject invention, "said step of analyzing the video signal comprises facial expression recognition". This is shown in Fig. 2 as Ref. No. S204, and described in the specification on page 5, lines 6-11.

The subject invention also relates to a method of controlling at least two ambient light sources. As claimed in claim 4, the method of the subject invention includes "receiving a video signal by a receiver". This is shown in Fig. 2 as Ref. No. S200, and described in the specification on page 4, lines 14-16.

In addition, the method of the subject invention includes "presenting the video signal by a presentation device". This is shown in Fig. 1 as Ref. No. 110, and described in the specification on page 3, lines 31-32, and on page 6, lines 25-29.

The method of the subject invention further includes "analyzing the video signal to determine optical properties of an image to be formed by the video signal". This is shown in Fig. 2 as Ref. No. S202, and described in the specification on page 4, line 17 to page 5, line 3.

In addition, the method of the subject invention includes "setting a property of ambient light generated by said at least two ambient light sources based upon the determined optical properties". This is shown in Fig. 2 as Ref. Nos. S206 and S210, and described in the specification on page 5, line 12 to page 6, line 15, and page 6, lines 25-29.

Furthermore, the method of the subject invention includes "setting the property of the ambient light generated by the ambient light source, of the at least two ambient light sources, that is closer to the presentation device than any other of the at least two ambient light sources." This is described in the specification on page 5, lines 16-20.

The subject invention further relates to a system for controlling at least one ambient light source. As claimed in claim 8, the system of the subject invention includes "receiving means for receiving a video signal". This is shown in Fig. 1 as Ref. No. 110, and described in the specification on page 3, lines 31-32. Alternatively, this is shown in Fig. 3 as Ref. No. 302, and described in the specification on page 7, lines 15-17.

In addition, the system of the subject invention includes "translation means for translating the video signal into a displayable signal to be displayed by a presentation device". This is shown in Fig. 1 as Ref. No. 110, and described in the specification on page 3, lines 31-32. Alternatively, this is shown in Fig. 3 as Ref. No. 310, and described in the specification on page 7, lines 22-24.

The system of the subject invention further includes "processing means for analyzing the received video signal to determine optical properties of an image to be formed by the video signal, and for setting a property of ambient light generated by the at least one ambient light source based upon the determined

optical properties". This is shown in Fig. 3 as Ref. No. 304, and described in the specification on page 7, lines 17-19.

The subject invention also relates to a system of controlling at least two ambient light sources. As claimed in claim 9, the system of the subject invention includes "receiving means for receiving a video signal:. This is shown in Fig. 1 as Ref. No. 110, and described in the specification on page 3, lines 31-32. Alternatively, this is shown in Fig. 3 as Ref. No. 302, and described in the specification on page 7, lines 15-17.

In addition, the system of the subject invention includes "translation means for translating the video signal into a displayable signal to be displayed by a presentation device. This is shown in Fig. 1 as Ref. No. 110, and described in the specification on page 3, lines 31-32. Alternatively, this is shown in Fig. 3 as Ref. No. 310, and described in the specification on page 7, lines 22-24.

The system of the subject invention further includes "processing means for analyzing the received video signal to determine optical properties of an image to be formed by the video signal, and for setting a property of ambient light generated by the at least two ambient light sources based upon the determined optical properties, wherein the processing means sets the property of the ambient light of the ambient light source, of the at least two ambient light sources, that is closer to the presentation device than any other of the at least two ambient light sources." This is shown in Fig. 3 as Ref. No. 304, and described in the

specification on page 7, lines 17-19. This is further described in the specification on page 5, lines 16-20.

As claimed in claim 10, this system of the subject invention further includes "synchronization means for synchronizing the presentation of the display signal on the presentation device with setting the property of the ambient light". This is shown in Fig. 3 as Ref. No. 308, and described in the specification on page 7, lines 21-22.

Finally, as claimed in claim 11, the subject invention relates to a lighting unit, and includes "a light armature". This is shown in Fig. 1 as Ref. Nos. 102, 104, 106, 108 and 112, and described in the specification on page 1, lines 15-20, and on page 3, lines 27-31.

In addition, the lighting unit of the subject invention includes the system for controlling at least one ambient light source, as described above with reference to claim 8.

(vi) Grounds of Rejection to be Reviewed on Appeal

- (A) Whether the invention, as claimed in claims 1 and 4-11, is anticipated, under 35 U.S.C. 102(b), by U.S. Patent 6,166,496 to Lys et al.
- (B) Whether the invention, as claimed in claims 2 and 3, is unpatentable, under 35 U.S.C. 103(a), over Lys et al. in view of U.S. Patent 6,689,947 to Ludwig.

(vii) Arguments

(A) Whether Claims 1 And 4-11 Are Anticipated By Lys et al.

35 U.S.C. 102(b) states:

"A person shall be entitled to a patent unless –
(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for patent,...."

The Lys et al. patent discloses a lighting entertainment system in which lighting elements are controlled by a lighting signal. As noted in the Abstract, "A system is provided for combining an illumination control signal and an entertainment signal. At a decoder, the combined signal may be decoded into an entertainment signal that is delivered to an entertainment device, and an illumination control signal that is delivered to an illumination source."

As noted in MPEP §2131, it is well-founded that "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Further, "The identical invention must be shown in as complete detail as is contained in the ... claim." Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

Independent claims 1 and 8 include the limitations "analyzing the received video signal to determine optical properties of an image to be formed by the video signal" and "setting a property of

ambient light generated by the at least one ambient light source based upon the determined optical properties".

The Examiner indicates that Lys et al. teaches:

"analyzing the video signal to determine optical properties of an image to be formed by the video signal; (Lys: fig. 1 85, col. 47, line 60 - col. 49, line 8, microprocessor processes certain portions of the bandwidth of television signal for signals relating to the room light, thus a television signal may instruct the room lights to dim at certain points during the presentation, to strobe to different colors at other points, and to flash at other points)"

and

"setting a property of ambient light generated by said at least one ambient light source based upon the determined optical properties (Lys fig. 85, col. 47, line 60 - col. 49, line 64, color and intensity of room lights may be directly controlled through certain portions of the bandwidth of television signal, control data may be sent to the illumination sources, which are depicted as light modules 100, as a result, illumination control may be associated with an entertainment signal, so that the illumination sources 501 can be matched to the entertainment signal played on the entertainment device 514, room lights may be synchronized and trolled to create different conditions simultaneously with event that occur in programs that are being displayed on a television)."

Applicants submit that while the Examiner has accurately described the Lys et al. system, the Examiner has ignored important limitations in the claims. In particular, claims 1 and 8 specifically recite "analyzing the received video signal to determine optical properties of an image to be formed by the video signal" (emphasis added). While Lys et al. analyzes the received video signal to extract signals relating to the room light, and to use these extracted signals to control the room light, this has nothing to do with the optical properties of an image to be formed

by the video signal. The room lighting is not optical properties of an image.

Applicants remind the Examiner of the above directions from the CAFC regarding anticipation - "The identical invention must be shown in as complete detail as is contained in the ... claim." Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

The subject invention analyzes the video signal to determine optical properties of an image to be formed by the video signal. As described in the specification on page 1, lines 26-27, and more particularly on page 4, line 20 to page 5, line 3, these optical properties of an image to be formed by the video signal include hue, saturation, brightness, color, etc. It should be understood that while the video signal does not itself possess these optical properties, the video signal does include parameters that when applied to a display device, generate images having these optical properties. Hence, while the optical properties of an image to be formed by the video signal may be determined by analyzing the formed image (e.g., using some form of light detection (a camera directed at the display screen)), these optical properties may also be determined by analyzing specific parameters of the video signal which would cause a resulting image to have such optical properties.

Applicants therefore submit that Lys et al. sets a property of ambient light generated by the at least one ambient light source based upon the detected light control signal (that was previously

embedded in the television signal col. 47, line 63 to col. 48, line 5), and not on determined optical properties of an image to be formed by the video signal.

(B) Whether Claims 2 And 3 Are Unpatentable

Over Lys et al. In View Of Ludwig

The above arguments concerning Lys et al. are incorporated herein.

Claim 2 includes the limitation "said step of analyzing the video signal further comprises face recognition", while claim 3 includes the limitation "said step of analyzing the video signal comprises facial expression recognition".

The Ludwig patent discloses a real-time floor controller for control of music, signal processing, mixing, video, lighting, and other systems, in which it is disclosed that recognition of human facial expressions from video images may be used as a controller for sound, lighting and special effects.

Applicants however submit that Ludwig does not supply that which is missing from Lys et al., i.e., "analyzing the received video signal to determine optical properties of an image to be formed by the video signal" and "setting a property of ambient light generated by the at least one ambient light source based upon the determined optical properties".

Based on the above arguments, Appellants believe that the subject invention is neither anticipated nor rendered obvious by the prior art, and is patentable thereover. Therefore, Appellants respectfully request that this Board reverse the decisions of the Examiner and allow this application to pass on to issue.

Respectfully submitted,

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(viii) Claims Appendix

1. (Previously Presented) A method of controlling at least one ambient light source, the method comprising the steps of:

receiving a video signal by a receiver; and

presenting the video signal by a presentation device,

5 characterized in that the method further comprises the steps of:

analyzing the video signal to determine optical properties of an image to be formed by the video signal; and

setting a property of ambient light generated by said at least one ambient light source based upon the determined optical

10 properties.

2. (Previously Presented) The method of controlling at least one ambient light source as claimed in claim 1, wherein said step of analyzing the video signal further comprises face recognition.

3. (Previously Presented) The method of controlling at least one ambient light source as claimed in claim 2, said step of analyzing the video signal comprises facial expression recognition.

4. (Previously Presented) A method of controlling at least two ambient light sources, the method comprising the steps of:

receiving a video signal by a receiver; and

presenting the video signal by a presentation device,

5 characterized in that the method further comprises the steps of:

analyzing the video signal to determine optical properties of an image to be formed by the video signal; and
setting a property of ambient light generated by said at least two ambient light sources based upon the determined optical
10 properties,

wherein the method comprises setting the property of the ambient light generated by the ambient light source, of the at least two ambient light sources, that is closer to the presentation device than any other of the at least two ambient light sources.

5. (Previously Presented) The method of controlling at least two ambient light sources as claimed in claim 4, wherein setting the property of the ambient light is substantially synchronous with presentation of the video signal by the presentation device.

6. (Previously Presented) The method of controlling at least one ambient light source as claimed in claim 1, wherein setting the property of the ambient light is configurable.

7. (Previously Presented) The method of controlling at least one ambient light source as claimed in claim 1, wherein setting the property of the ambient light is configurable by a user preference.

8. (Previously Presented) A system for controlling at least one ambient light source, the system comprising:

receiving means for receiving a video signal; and

translation means for translating the video signal into a
5 displayable signal to be displayed by a presentation device,
characterized in that the system further comprises:

processing means for analyzing the received video signal
to determine optical properties of an image to be formed by the
video signal, and for setting a property of ambient light generated
10 by the at least one ambient light source based upon the determined
optical properties.

9. (Previously Presented) A system of controlling at least two
ambient light sources, the system comprising:

receiving means for receiving a video signal; and
translation means for translating the video signal into a
5 displayable signal to be displayed by a presentation device,
characterized in that the system further comprises:

processing means for analyzing the received video signal
to determine optical properties of an image to be formed by the
video signal, and for setting a property of ambient light generated
10 by the at least two ambient light sources based upon the determined
optical properties, wherein the processing means sets the property
of the ambient light of the ambient light source, of the at least
two ambient light sources, that is closer to the presentation
device than any other of the at least two ambient light sources.

10. (Previously Presented) The system of controlling at least two
ambient light sources as claimed in claim 9, wherein the system

further comprising synchronization means for synchronizing the presentation of the display signal on the presentation device with
5 setting the property of the ambient light.

11. (Previously Presented) A lighting unit comprising a light armature and the system as claimed in claim 8.

(ix) Evidence Appendix

There is no evidence which had been submitted under 37 C.F.R. 1.130, 1.131 or 1.132, or any other evidence entered by the Examiner and relied upon by Appellant in this Appeal.

(x) Related Proceedings Appendix

Since there were no proceedings identified in section (ii) herein, there are no decisions rendered by a court or the Board in any proceeding identified pursuant to paragraph (c)(1)(ii) of 37 C.F.R. 41.37.